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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,577	01/24/2002	Naohiro Hirose	KON-1707	5337
20311	7590	01/19/2005	EXAMINER	
MUSERLIAN, LUCAS AND MERCANTI, LLP 475 PARK AVENUE SOUTH 15TH FLOOR NEW YORK, NY 10016			RODEE, CHRISTOPHER D	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/056,577

Applicant(s)

HIROSE ET AL.

Examiner

Christopher RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 2-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

Claims 2-5 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected processes, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 28 August 2003. The basis for the restrictions presented in the Office action of 29 January 2003 remains applicable to the amended claims. New claim 9 is examiner with the elected claims.

### *Claim Rejections - 35 USC § 102*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Nozawa *et al.* in US Patent 6,555,281.

Nozawa was presented in the last Office action. Applicants provide a detailed traversal of the instant rejection without any amendments to the claimed invention. The traversal has been considered in its entirety including the reference to the previously considered declaration.

Applicants stress that just because a reference toner has the claimed SF-1/SF-2 ratio it does not necessarily follow that the toner has the claimed particle size characteristics for those particles between 0.60 and 1.00 microns. In support of this position applicants refer the Examiner to data in the application (response pp. 11-15) and the evidence of record in the Yamazaki declaration (response pp. 15-17), which shows that toners having the claimed SF-1/SF-2 ratio do not have the claimed particle size characteristics.

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The Examiner has carefully considered applicant's position, but most note that the SF-1/SF-2 ratio was not the basis for the holding of inherency for the number of particles with diameters between 0.60 and 1.00 microns. The Examiner made this determination based on the average particle size of the toner and the disclosure of the number of particles with a size of 4 microns or less. As discussed in the last Office action, Exemplar 34 has 8.0 number % of particles with a size of 4 microns or less and an average size of 7.1 microns. Based on the small number of particles having a size of 4 microns or less and the average particle size at 7.1 microns it appears that the reference inherently has less than 5 % by number of particles with a size of 0.60 to 1.00 microns according to the method of determination required by the claims. Thus the discussion of the SF-1/SF-2 ratio with its reliance on the data and declaration evidence of record is not sufficient to overcome the rejection.

With respect to the number of particles having a size of 4 microns or less and the average particle size at 7.1 microns, applicants point out that Nozawa does not measure the number of particles with a size smaller than 2 microns. Consequently, Nozawa cannot possess the size limitation for particles between 0.60 and 1.00 microns because it does not measure these sizes (response p. 18). The Examiner has carefully considered these remarks in light of a comprehensive review of Nozawa. Applicants are correct that Nozawa does not measure the size of toner particles below 2 microns. However Nozawa teaches that the average particle size of the toner is substantially larger than diameter range of interest in the claims (i.e., 0.60 to 1.00 microns). Nozawa also teaches that the number of small toner particles is minimized to reduce excessive charging in a low humidity environment (col. 11, l. 22-30). The reference also teaches that small external additive particles can be released from the toner during the imaging process. That is, particles smaller than the toner are released. This has deleterious effects on image formation (col. 7, l. 51-59). Clearly the reference teaches that the number of small

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particles is minimized in the toner. Based on the totality of the disclosure, including the large average diameter and the teaching away from small free particles in the toner, there is sufficient reason to believe that the number of particles between 0.60 and 1.00 microns is within the claimed range. The rejection is still seen as proper and is maintained.

Claims 1 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto *et al.* in US Patent 6,610,454 considered with Yachi *et al.* in US Patent 5,773,185.

This rejection was also presented in the prior Office action. Yachi is specifically added to this rejection to address a ground of traversal presented in the recent response.

Applicants traverse this rejection for the same reason as given above concerning the disclosed SF-1/SF-2 ratio as not being indicative of the number of particles between 0.60 and 1.00 microns (response pp. 11-18). As with Nozawa, the Examiner has not taken the position that this ratio has a relevance to the number of particles in the specified size range. Consequently, the traversal on this basis is not persuasive for the same reasons given above.

Applicants also traverse the rejection because the method of making the toner in Example 29, which was relied upon in the last Office action, does not specify the classification step so that it is not clear how much of the 10.5 micron-average sized toner is between 0.60 and 1.00 microns. With respect to Example 17, applicants state that a suspension polymerization system typically uses a force to break the droplets into smaller drops. This typically gives a broader particle size distribution so that it is unlikely the particles will have the necessary number of particles between 0.60 and 1.00 microns (response pp. 19-20).

The Examiner has carefully considered applicant's position. With respect to Example 17's disclosure, there is no indication in the reference that the high-speed stirrer produces a broad particle size distribution for the suspension as asserted in the response. The use of the

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suspension polymerization method appears to be a method disclosed as effective by the instant specification (p. 26). In fact, the use of the calcium phosphate dispersion stabilizer would appear to aid in providing a narrow particle size distribution. Yachi teaches that the addition of a dispersant in a suspension polymerization process, such as calcium phosphate, would be expected to give a suspension resulting in toner with a sharp particle size distribution (see Yachi col. 14, l. 42-49; col. 15, l. 17-50). Yachi specifically teaches as effective a process where the inorganic dispersant is formed in the reaction medium (col. 15, l. 37-42). This process is used by Hashimoto in Example 17. Given this teaching of a sharp particle distribution using a suspension polymerization method disclosed by Hashimoto and the disclosure of a toner with an average size of 6.4 microns, the artisan would expect a small number of toner particles within the size range of 0.60 and 1.00 microns.

The rejection is still seen as proper and is maintained.

### ***Claim Rejections - 35 USC § 103***

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto *et al.* in US Patent 6,610,454 in view of Yachi *et al.* in US Patent 5,773,185.

Hashimoto was disclosed above. This reference does not disclose the newly required compound given by the formula in claim 9. However, Hashimoto does teach ester waxes as effective toner additives to prevent offset (see col. 19, l. 51 – col. 16, l. 38; Examples 31, 34, 35, etc.).

Yachi teaches the use of ester waxes as effective offset preventing agents (see Formula (1) in col. 9). Also as noted above, Yachi teaches that the addition of a dispersant in a suspension polymerization process, such as calcium phosphate, would be expected to give a suspension resulting in toner with a sharp particle size distribution (see Yachi col. 14, l. 42-49;

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col. 15, l. 17-50). Yachi specifically teaches as effective a process where the inorganic dispersant is formed in the reaction medium (col. 15, l. 37-42). This process is used by Hashimoto in Example 17.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an ester wax of the Formula (1) in the invention of Hashimoto because Hashimoto teaches that ester waxes are effective offset preventing agents and Yachi discloses a specific wax that is shown to be effective as an offset preventing agent for use in a similar toner production process (see discussion of process features in the section 102 rejection above). The artisan would also have minimized the particle size distribution in Hashimoto because the artisan would recognize from the teachings of Yachi that the process used by Hashimoto is known to give a sharp particle size distribution. This in turn would minimize the number of particles between 0.60 and 1.00 microns. With this knowledge, the artisan would minimize the size of the toner, such as in Example 17, to values near the average.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr  
13 January 2005



**CHRISTOPHER RODEE  
PRIMARY EXAMINER**